

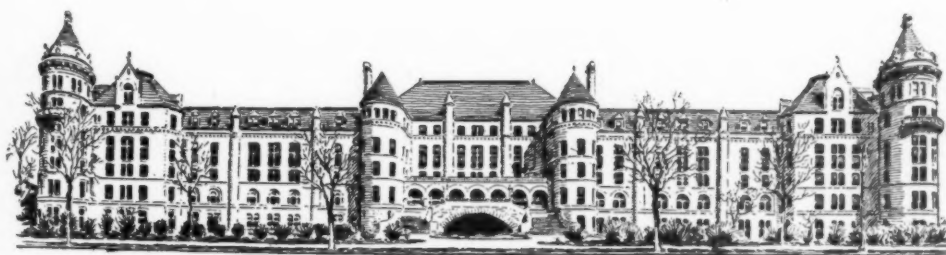
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MARCH, 1903

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# THE AMERICAN MUSEUM JOURNAL



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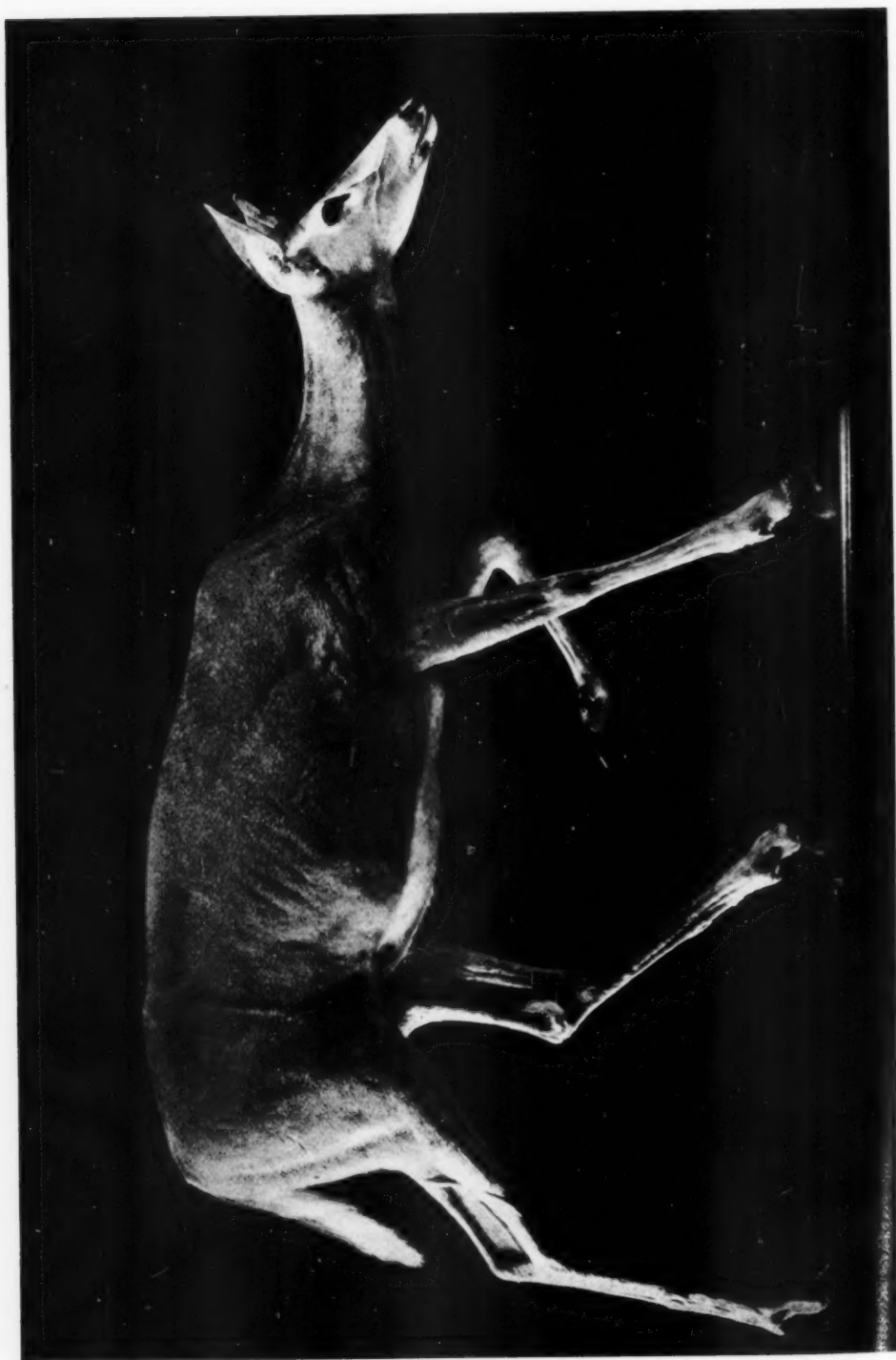
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THE AMERICAN MUSEUM OF NATURAL HISTORY was established in 1869 to promote the Natural Sciences and to diffuse a general knowledge of them among the people, and it is in cordial coöperation with all similar institutions throughout the world. Since the Museum authorities are dependent upon private subscriptions and the dues from the members for procuring needed additions to the collections and for carrying on explorations in America and other parts of the world, the attention of persons interested in such matters is called to the brief statement of deeds and needs on the fourth page of the cover of the Supplement.





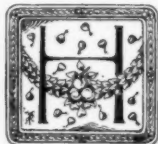
THE NEW SPECIMEN OF THE VIRGINIA DEER

# The American Museum Journal

VOL. III.

MARCH, 1903

No. 3.



HEREAFTER THE AMERICAN MUSEUM JOURNAL will be issued at quarterly instead of monthly intervals. Each number will contain at least three times as much matter as is now placed in one and will present a review of the Museum's activities during the preceding three months. A guide leaflet monographing some Museum exhibit, similar, therefore, in character, to those already issued, will accompany each number of the JOURNAL.

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## NEW METHODS IN TAXIDERMY.

UNDER modern methods of preparation animals are not stuffed, but modelled. The preservation of the skin itself falls to the lot of a tanner and hide-dresser who, in the strict sense of the word, is the taxidermist of to-day. The manikin on which the skin is to be placed is first modelled, life-size, in clay, all the anatomy of form being worked out with due detail. This life-size clay image is then cast in plaster and from the plaster molds the final manikin of cheese-cloth, papier-maché, shellac, and fine wire net is made. It is a mere shell, not more than a sixteenth of an inch thick, very light, but strong and durable. It never shrinks or cracks, and is consequently a very distinct advance over a clay manikin which, in drying, materially changes in form with consequent great injury to the skin.

This new method was originated by Mr. C. E. Akeley of the Field Columbian Museum, with whom Mr. J. L. Clark of the American Museum's Department of Preparation has lately been studying. The first animal mounted by Mr. Clark after the Akeley method is the Virginian doe figured in this number of the JOURNAL.

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### SKULL OF THE IMPERIAL MAMMOTH.

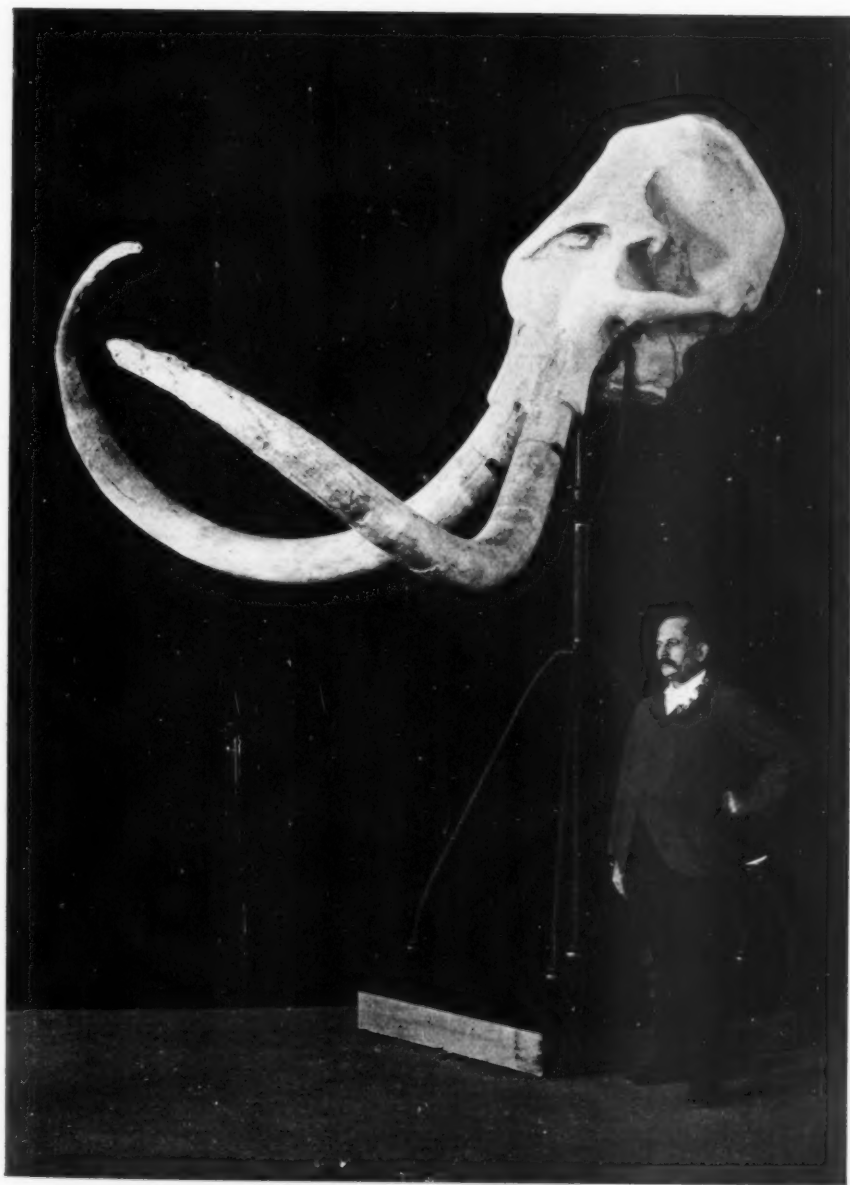
THERE has just been placed on exhibition in the Fossil Mammal Hall of the American Museum of Natural History a superb specimen of the tusks and palate of what may be known as the 'Imperial Mammoth,' described in 1858 by Joseph Leidy as *Elephas imperator*, from a single tooth found in Indiana.

The specimen was discovered in the sands of western Texas many years ago by an amateur collector, and was only recently secured by the American Museum. The upper portions of the skull have been reproduced in plaster, but the entire lower portion of the skull, the large pair of grinding teeth, and the gigantic tusks are complete. The latter fall little short of being the largest elephant tusks thus far described among either living or fossil members of this family. So far as preserved they measure 13 ft. 6 in. from the base of the tusk to the tips, and there is at least a foot broken away from the end of the tip, making the total estimated length 14 ft. 6 in.

On leaving the skull, the tusks (which were undoubtedly used for fighting purposes) in young and middle-aged animals curve downward and outward, then in old animals upward and inward, until the tips almost meet each other. The height of this animal must have been at least 13 ft., 2 ft. higher than that of the famous African elephant "Jumbo," the skeleton of which is also in the Museum.

The single molar or grinding tooth is distinguished from that of the Mammoth of the extreme north, *Elephas primigenius*, and that of the Columbian Mammoth of the middle United States, *Elephas columbi*, by its very large size, and by the comparatively small number of its enamel plates, which are set widely apart and surrounded by broad bands of cement. In the grinders of the northern Mammoth, the enamel plates are extremely numerous and closely appressed, and there is little or no cement.

This specimen of the Imperial Mammoth, therefore, adds greatly to our knowledge; and, together with the giant fore limb, which is placed on exhibition near by, gives an impressive



SKULL AND TUSKS OF THE IMPERIAL MAMMOTH

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idea of the enormous size attained by the early Pleistocene or preglacial elephants of this country.

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### A POSSIBLE AMERICAN KIMBERLEY.

A SERIES of interesting specimens have been received in the Department of Mineralogy from the Kentucky Diamond Mining and Developing Company, which are related to the efforts about to be made by this company in their search for diamonds in Elliott County, eastern Kentucky.

The specimens consist of a large nodule of a green rock known to lithologists as *dunite*, and composed of chrysolite (*peridot*) and pyroxene (*enstatite*) with garnet and an iron mineral (*ilmenite*), with a few specks of mica, the whole greatly changed and converted through most of its mineral texture into serpentine. With this dense rock, taken below the surface, are specimens of the pulverulent, friable and weathered surface rock. This surface rock in weathering discharges the more resistant grains, crystals and fragments of iron oxide and garnet which collect in the stream beds of the region.

A number of specimens, also, of semi-graphitic or coaly character, accompany the peridotitic lumps and nodules which have been taken from beds traversed by the former, where it exists as an eruptive dike rising above the adjacent country.

The speculative basis which is afforded by the presence of this rock in Kentucky is its association with carbon-bearing strata, carboniferous sandstones and shales. It is surmised, after analogies drawn from the diamond region of South Africa, where a similar association seems established, that as the olivine rock in Kentucky is plainly an eruptive rock, in its passage upward through these carbonaceous deposits carbon vapors may have been formed, and their absorption by the liquid magma of the exuding rock resulted in the formation of diamonds.

The "necks" of volcanic rock at Kimberley, S. A., perforate adjacent carbonaceous shales, and the origin of the diamond in that locality has been attributed to their thermal and static action upon carbon vapors, disengaged from these strata.



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The question is as yet quite unsettled, but as the "peridotite" of Kentucky *resembles* the rock of South Africa, in which the diamond has been found in such abundance, and the geological relations are quite parallel, in a general way, between it and the county rock, with those developed at Kimberly, the inference seemed plausible, at least, that the diamond would appear, if carefully looked for, in Kentucky also.

There has indeed been some corroboration reported of this suggestion, and at least two diamonds coming from Elliott County, Ky., have been exhibited, though their absolute reference to Kentucky is still in doubt.

Finally, as permitting a greater degree of confidence in this particular, the observation of Friedland may be quoted. He showed that a fused globule of olivine—practically the rock composing the Kentucky dikes—when stirred with a pencil of graphite (carbon), upon cooling, was found to contain microscopic diamond seeds or grains.

The operations of the company will be watched with interest. The specimens from Elliott County and a series from South Africa are exhibited in juxtaposition in Case 25 (north end) in the Mineralogical Hall.—L. P. G.

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## THE NEW SEA-BIRD GROUP.

ENCOURAGED by the praise which has been so uniformly accorded the "Bird Rock" Group, a companion group has been prepared to represent the sea-bird life of a sandy beach. The addition of a painted background not only increases the instructiveness of this new group by accurately depicting the character of the birds' haunts, but also adds greatly to its beauty and pictorial effect. The attempt to show many birds in flight has also been surprisingly successful, skillful treatment rendering the birds' means of support practically invisible.

The locality represented is Cobb's Island, Virginia, a shell-strewn, sandy islet seven miles long and about the same distance from the mainland. This was formerly one of the most remark-



CENTRAL PORTION OF THE GROUP OF BEACH-BREEDING BIRDS OF COBB'S ISLAND

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able breeding-places for birds on our Southern coast; but when a demand first arose for Terns, 'Sea-Swallows,' or 'Summer Gulls,' for millinery purposes, so many were killed on Cobb's Island that several species were practically exterminated there. In one day 1400 Least Terns were shot; and in three days three baymen shot 2800 Terns of various species. The State of Virginia subsequently passed a law protecting these birds, and the American Ornithologists' Union now provides a warden to enforce it during the nesting season. As a result the birds are increasing in numbers, and it is hoped that they may become as abundant as they were formerly.

The group was prepared under the direction of Frank M. Chapman, from studies and photographs made by him on Cobb's Island, in July, 1902. The background was painted by W. B. Cox. The birds were mounted and arranged by H. C. Denslow, of the Museum's Department of Preparation.

Sixty-three individuals of the following six species are shown: Least Tern, Gull-billed Tern, Common Tern, Skimmer, Wilson's Plover, and Oyster Catcher. In most instances the eggs and young at various stages are represented.

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## THE NEW INSECT HALL.

THE new hall of the Department of Entomology, in the gallery floor of the east wing of the Museum, is now open to the public. In this hall there is now on exhibition, for the first time, the entire magnificent collection of butterflies of America, north of Mexico, and from other parts of the world, which was generously donated to the Museum by the late Very Rev. E. A. Hoffman. It contains about 2000 species, represented by over 5000 specimens, and is arranged in fourteen large double cases, containing specimens from Mexico, Central and South America, India, Malay Islands, Australia, Japan, Africa and Europe. The North American butterflies are installed separately in four cases, nearly all the species found in this country being represented.

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Among the most noteworthy species in the general collection are the Brilliant Blue Morphos, Owl-faced Butterflies (*Caligo*), the Swallow-tails (*Papilio*), Citron, Orange, Lemon, and White Butterflies belonging to the family Pieridæ. A good representation of the Milk-weed and Glass-winged Butterflies and allies is also shown. A beautiful example of *Papilio homerus* from Jamaica, B. W. I., and of *Dynastor napoléon* from Rio Janeiro, Brazil, are exhibited, as well as many other rarities.

In the railing cases of the hall is exhibited a collection of insects found within fifty miles of New York City, which was transferred from the main hall, where it was on exhibition formerly. The hall also contains collections of economic entomology and insect architecture.

At the entrance of the hall is a large case containing specimens of Termites' nests from Colombia, Jamaica, and the Bahamas. The specimen here figured was collected by Prof. R. P. Whitfield in Graytown, a suburb of Nassau on the island of New Providence, Bahamas. It is about three feet high and twenty-two inches in diameter. This interesting specimen was found in the midst of a pineapple plantation and was built on an old cedar stump. It is composed of vegetable mold which accumulates in the cavities of the coral formation of the island. Professor Whitfield informs us that the settlers of the islands encourage these insects for the purpose of feeding them to young chickens. The other nests in the case were collected by Dr. F. C. Nicholas. Owing to their resemblance in appearance and in habits to ants, Termites are wrongly called "White Ants." They are found in the warmer parts of the world and are said to be useful as well as injurious. In uninhabited districts they are valuable, owing to the fact that they feed essentially on dead wood, and are the means of clearing the forests of decayed trees.

They also feed upon other substances, and in settled regions they often attack houses, and in this respect do considerable mischief to the woodwork by devouring the interior of the frame and posts. They never break through the exterior, but leave a shell scarcely thicker than ordinary paper, so that nothing without indicates the cavity within.



NEST OF TERMITES

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In the case with the Termites' nest is exhibited a specimen of a wooden plank from a house attacked by these pernicious insects. Disliking the light, they always work under cover building a tunnel from the ground to their nest in a tree. Some species of Termites build nests of clay.

Thousands of these insects inhabit a single nest, a colony consisting of a queen, males, workers, and soldiers. The workers and soldiers are without eyes.—W. B.

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### THE ANDREW J. STONE COLLECTION OF 1902.

MR. STONE and his assistants spent the season of 1902 mainly in northern British Columbia, although the first few weeks of the season were spent by Mr. Stone in the western part of the Alaska Peninsula, which he revisited to obtain accessories for the setting of the Grant Caribou group, and, if possible, to obtain additional specimens of the large Alaska Bears. The bear hunt was unsuccessful, owing to the fact that the bears of the region visited have become practically exterminated by the big-game hunters. Mr. Stone, however, succeeded in securing an exceedingly valuable series of skulls of the famous Kadiak Bear, the largest known living land carnivore.

The main work of the season was begun at Wrangel, Alaska, in June, and later was extended inland to the upper Stickeen River region, in northern British Columbia, and at the close of the season a month was again spent in the neighborhood of Wrangel, on the Alaskan coast.

The present year's work was restricted to the gathering of mammals, both large and small, with the result that the largest and most important collection of mammals ever made by any party in a single season in northern North America was secured and brought to the Museum in perfect condition. The large game, numbering some fifty head, includes a fine series each of Moose, Caribou, Sitka Deer, Mountain Goats and Mountain Sheep, besides a few Bears, Wolves, Foxes, Wolverenes, etc. The small mammals number about a thousand specimens and represent, in large series,



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nearly all of the species of the regions visited, and include a number scarcely represented before in any museum, while nearly all are new to our own collection, and hence of the highest importance. Especially noteworthy is a large series of the Golden Lemming, of which we had previously but a single immature specimen, and of which only a very few had ever been seen by naturalists. Among other noteworthy specimens mention should be made of the series of Osborn Caribou, the largest and handsomest known species of the group, and also of the Stone Sheep, both discovered in this same region by Mr. Stone on previous expeditions.

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### FORTHCOMING REPORT ON THE SIBERIAN MAMMALS COLLECTED BY THE JESUP NORTH PACIFIC EXPEDITION.

IN addition to the ethnological work undertaken in eastern Siberia by the Jesup North Pacific Expedition, extensive collections were made in natural history, particularly of mammals, birds and fishes. Mr. N. G. Buxton of Johnstown, Ohio, an experienced collector, was especially employed for the natural history work during the years 1900 and 1901, and a considerable number of specimens were also secured by other members of the expedition. A report on the mammals has already been prepared for publication in the MUSEUM BULLETIN, and other reports will follow on the birds and fishes. The collection of mammals numbers over 500 specimens, representing 30 species, of which about one third have proved new to science. The material is all new to the Museum, and includes a large number of specimens that will be eventually mounted for exhibition.

A number of the new species show unexpectedly close relationship with American species, and give evidence that eastern Siberia has derived some of its present mammalian life from boreal America, and doubtless within a comparatively recent period. The American origin of various early types that eventually attained circumpolar distribution, as the horse, camel and

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rhinoceros phyla, etc., is now well established by palæontological evidence, but that the same is true of some forms of the existing mammalian fauna does not appear to have been heretofore generally recognized.

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### A NEW SPECIES OF COTTON FROM A PREHISTORIC RUIN IN UTAH.

IN one of the collections gathered by the Hyde Expedition for this Museum there has been found a species of cotton hitherto unknown to science.

This collection was made by the Wetherill brothers in 1894-95. The greater part of the material is from caves and cliff houses of the Grand Gulch region of southeastern Utah and many new and interesting objects have been discovered in the course of renumbering and cataloguing.

Probably the most interesting discovery to scientists in general is a number of cotton bolls that were found in a corrugated jar that rested against the head of a skeleton of a "Mound Dweller."

This jar is from one of the numerous mounds of the "Mesa Ruins," as they are termed by one of the Wetherills, in the Grand Gulch country of Utah. In the jar were over sixty capsule cells, or seed-bearing sections of bolls, some of which contained cotton, also small ears of corn, seeds, cotton cloth, arrow points, iron ore and pebbles.

Samples of this cotton were sent to Professor C. F. Millspaugh of the Field Columbian Museum, Chicago, for study: the results of his investigations are embodied in the following letter:

"The cotton from jar 175 does not correspond to any known species. I have described it under the name *Gossypium aborigineum* as a new species and probably the progenitor of our tropic American *G. arboreum*." Professor Millspaugh is preparing a technical description of this new species, which will appear in one of the botanical journals.—G. H. P.



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### NEWS NOTES.



R. GEORGE HUNT of Fort Rupert, Vancouver Island, who has been collecting for the Museum for six years, is at present staying in New York, and is engaged in the arrangement of the collection which he has made. The material collected by him represents the culture of the Kwakiutl Indians, and some of the results of his work for the Museum have recently been published in the Memoirs of the Jesup North Pacific Expedition. A number of models illustrating the methods of fishing and hunting of the Kwakiutl Indians are at present being made by Mr. Hunt, assisted by Mr. Orchard. When this work is completed, a full collection of all the fish-traps used by these Indians will be in the possession of the Museum. Mr. Hunt is also revising the material of the collection with a view to filling in all the remaining gaps.

DR. E. O. HOVEY, Associate Curator of Geology, who has returned to the Lesser Antilles to continue his studies of volcanic activity in those islands, writes from St. Vincent, under date of March 5, as follows: "Tuesday, March 5, we ascended La Soufrière in favorable weather and had the good fortune to witness three fine outbursts while we were on the rim of the crater." Of Mt. Pèlee, in Martinique, which he had climbed only a short time previous, he writes: "The new cone is a remarkable affair with a tremendous 'tooth' projecting 500 feet above the main body of the cone. . . . There have been several changes in the mountain since last July, the most striking of which are the building of this cone and the almost complete filling of the Rivière Blanche with debris from eruptions."

THE group of Little Black Rail recently placed on exhibition in the Monkey Hall is the only known one of its kind. Adult birds of this species are both rare and, owing to their secretive habits, difficult of capture, while the young appear not to have been observed before those contained in this group were collected. They were brought to Mr. H. H. Brimley of Raleigh,

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N. C., in the egg by a negro who had discovered them in the nest. Hearing a *peep* from one of the eggs, Mr. Brimley placed them in a warm place, where they soon hatched. The young were then kept alive until they were twenty-four hours old, when they were preserved and subsequently mounted by Mr. H. C. Denslow of the Museum's Department of Preparation.

A FINE series of fossils from the Cretaceous chalk strata of western Kansas has been purchased for the Museum from the veteran collector, Chas. H. Sternberg. It includes a Mosasaur, or Great Marine Lizard skull with part of the skeleton, of the largest size and in splendid preservation, a complete fossil fish about twelve feet long, and a number of other valuable specimens.

MR. J. H. BATTY, who is collecting birds and mammals for the Museum in the mountains of northern Mexico, writes that about twenty wolves raided his camp at night recently, badly wounding his dogs and damaging some freshly prepared deer skins. The incident, however, resulted in the addition of three wolves to Mr. Batty's collection!

THE Department of Public Instruction has secured from Mr. A. J. Campbell of Melbourne, Australia, twenty-two negatives of the nests and eggs of the more characteristic Australian birds, including the King Bird of Paradise and Emeu.

THE New York Academy of Sciences has deposited its valuable library of about 10,000 volumes in the Museum. It is especially rich in the publications of foreign societies, a branch of scientific literature before but poorly represented in the Museum's library.

GENERAL J. WATTS DE PEYSTER has donated to the Museum some 250 volumes on general natural history, none of which were before contained in its library.

MR. GEORGE F. KUNZ has been appointed Honorary Curator of Gems.

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## Publications

The publications of the Museum consist of an Annual Report, in octavo, about 80 pages; the Bulletin, in octavo, of which one volume, consisting of about 400 pages, and about 25 plates, with numerous text figures, is published annually; the Memoirs, in quarto, published in parts at irregular intervals; an Ethnographical Album, issued in parts, and the American Museum Journal, published monthly, except July to September.

# The American Museum Journal

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